

Summer (June through August), 2010 Final Temperature Forecast for Philadelphia International Airport (PHL)

The forecast mean summer temperature is:	67% confidence interval is:	90% confidence interval is:
77.5	76.3 – 78.6	75.5 – 79.4

The forecast value is given in degrees Fahrenheit. The normal summer temperature at PHL is 75.4 degrees. Summer is defined as meteorological summer, i.e., the months of June through August.

The above forecast is from a multiple linear regression equation that was derived from data from 1966 through 2009 that came from PHL. It was found that the combination of the Julian date of the first occurrence of 90 degrees or higher, the Julian date of the first heat wave of the season and the mean April minimum temperature explains approximately 38 percent of the variance in the mean summer temperature.

The technique results in a specific forecast value and associated confidence intervals. So, the forecast of the mean summer temperature is 77.5 degrees; there is a 67% chance that the actual mean summer temperature will fall between 76.3 and 78.6 degrees, and there is a 90% chance that the actual mean summer temperature will fall between 75.5 and 79.4 degrees.

For purposes of this forecast, a heat wave is defined as at least three consecutive days with maximum temperatures of at least 90 degrees.